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ABSTRACT

The Secondary School Literacy Project (SSLiP) is a partnership between the Bay Area Coalition of Essential Schools (BayCES) and the Strategic Literacy Initiative at WestEd (SLI). SSLiP is a professional development and capacity building program for teams of teachers in the BayCES network of schools. During the 1999-2000 school year, seven school teams participated in the SSLiP network. Teams contained teachers from various subject areas. Each participating teacher was asked to choose one of his/her subject area classes to test and survey for the purpose of summative evaluation and learning for the entire network. To measure the impact of this work over the year on students' reading comprehension, the Degrees of Reading Power (DRP) Test was administered to students (one class for each teacher) in fall and spring of the 1999-2000 school year. The DRP is a Cloze test that assesses students' ability to use information in passages of nonfiction text on a variety of topics to figure out the test's meaning. For this group of diverse, urban secondary students, the mean independent reading level in the fall was 51, a score corresponding to texts like "Old Yeller." By the spring, the mean independent reading level had increased to 56, corresponding in difficulty to a text like "Black Boy" or "Cry the Beloved Country." Compared to a national norming population of age-matched peers, these students increased their national percentile ranking from 46% to 53% by spring. A paired samples test showed these increases in national percentile and normal curve rankings to be statistically significant. Includes data graphs. (NKA)

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Secondary School Literacy Project

A Summary of Student Outcomes on the Degrees of Reading Power Test

Academic Year 1999 - 2000

The Secondary School Literacy Project (SSLiP) is a partnership between the Bay Area Coalition of Essential Schools (BayCES) and the Strategic Literacy Initiative at WestEd (SLI). SSLiP is a professional development and capacity building program for teams of teachers in the BayCES network of schools. During the 1999 – 2000 school year, seven school teams participated in the SSLiP Network. Four of these seven schools are comprehensive high schools. Of the remaining three schools, one is a junior high school and two are small, alternative schools serving multiple grade levels, including middle and high school grades.

Each team was comprised of teachers from various subject areas, as the following table indicates. Each participating teacher was asked to choose one of his or her subject-area classes to test and survey for the purpose of summative evaluation and learning for the entire Network.

The Degrees of Reading Power (DRP) Test

To measure the impact of this work over the year on students' reading comprehension, the Degrees of Reading Power (DRP) test, published by Touchstone Applied Science Associates, was administered to students in the Fall and Spring of the 1999-2000 school year. Each participating teacher selected one class in which to give the DRP. Teachers were encouraged to give the test to a class in which they were implementing some aspects of the Reading Apprenticeship approach they were learning about in SSLiP.

The DRP is a Cloze test that assess students' ability to use the information in passages of non-fiction text on a variety of topics to figure out the meaning of the text. In a Cloze test, words in a passage of text have been deleted and the student is asked to select the correct word for each deletion in the text from a set of multiple choice options. All the content information that is needed to select the correct response is contained within the paragraph or passage.

Although the DRP test is designed to be administered in a typical class period, it is meant to be untimed. Teachers are encouraged to accommodate students who need extra time to complete the test. This is an important advantage of the test for both English Language Learners and Special Education students. The test is both a criterion- and norm-referenced test; i.e. scores

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are reported as units on the test designer's scale of independent reading difficulty level (P 90) as well as by national percentile ranking (NPR) and normal curve equivalent (NCE).

Analysis of Fall and Spring Matched DRP Scores

Matched Fall and Spring scores were available for 478 students, once we carried out a statistical test for outlying scores and eliminated these from the data set.[1] The chart on the following page shows the percentage of these 478 students who scored above 50 on the normal curve before the intervention (in the Fall) and after participating in a class in which their subject-area teacher worked to teach reading along with the regular, subject-area curriculum (in the Spring). As the chart on the following page shows, the percentage of students above the half-way mark on the normal curve increased from 42% in the Fall to 57% in the Spring.

[1] Outliers and unmatched scores are not included. The statistical term "outliers" refers to data points that differ significantly from most of the other data. For example, if one of a pair of scores is very low and the other score is high, the difference between the scores will be large. This usually results from one of the tests being a poor reflection of a student's ability. A large difference between pre-test and post-test scores can strongly influence the results of calculating averages and other statistical measures. In order to represent group and individual performance more accurately, outliers have been omitted from certain calculations. To eliminate outlying scores, we calculated the standard deviation in score within the population. Those scores that dropped more than one standard deviation or gained more than two standard deviations from the mean were seen as aberrant scores better explained by factors such as students' motivation or health or due to difficulties in the fall or spring testing situation.

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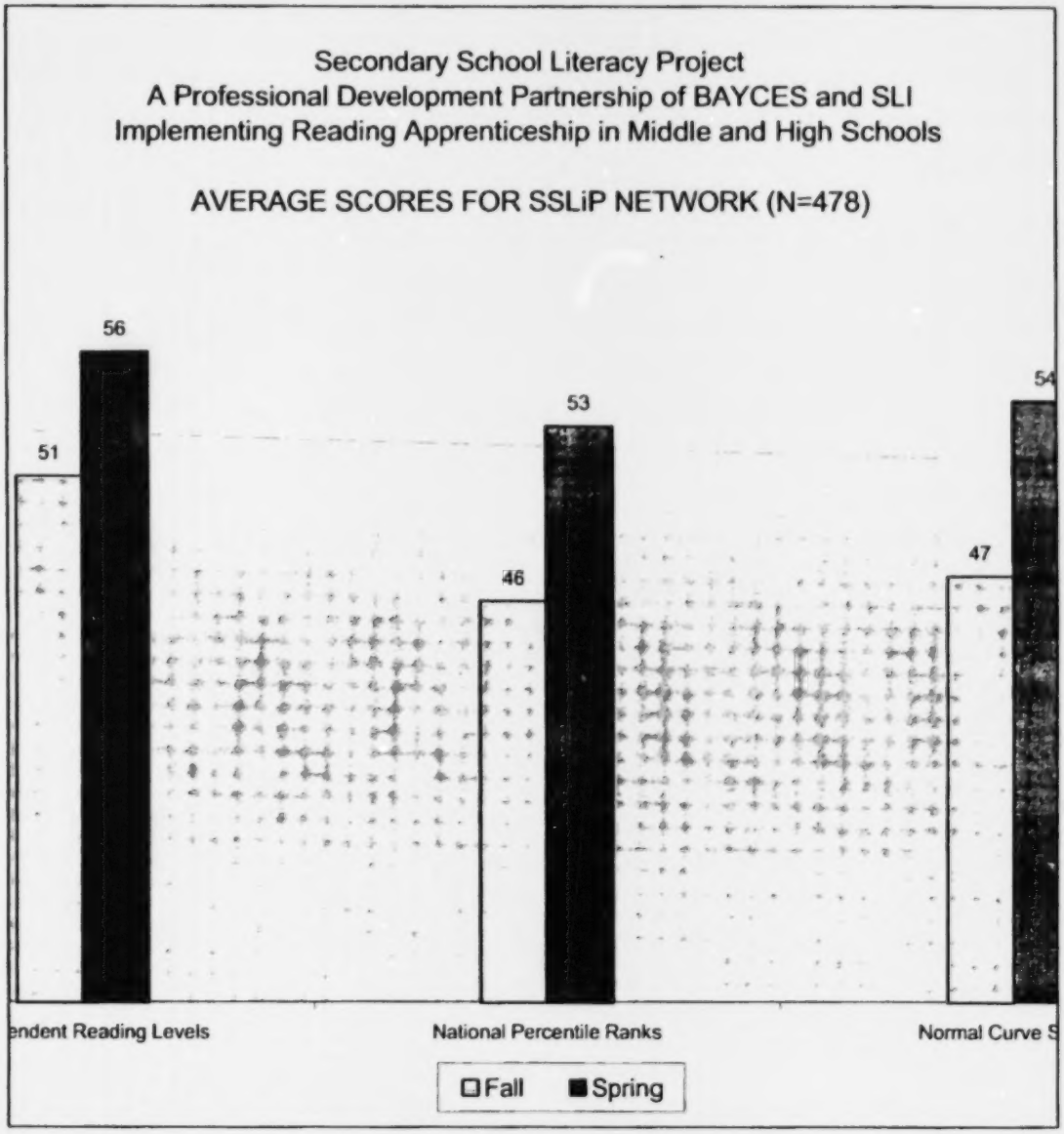

These scores represent a highly diverse population of students, spanning 6th to 12th grade, including students who are native English language speakers as well as those who are native speakers of other languages, and representing a variety of racial and cultural groups.

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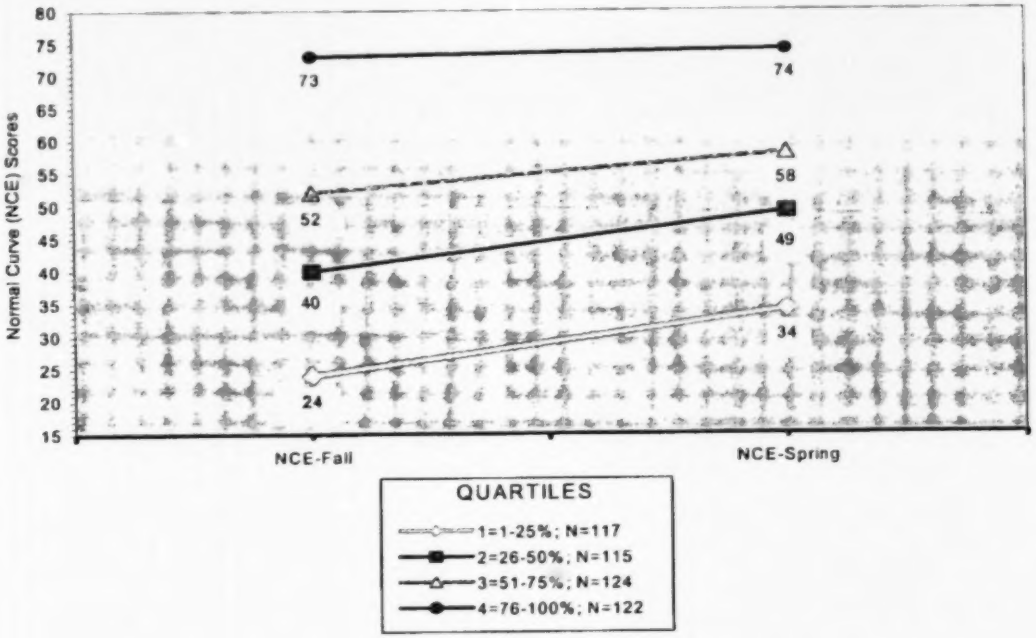
The following pie chart shows the proportion of students within each ethnic group.

AVERAGE FALL/SPRING NORMAL CURVE SCORES,
BY QUARTILES



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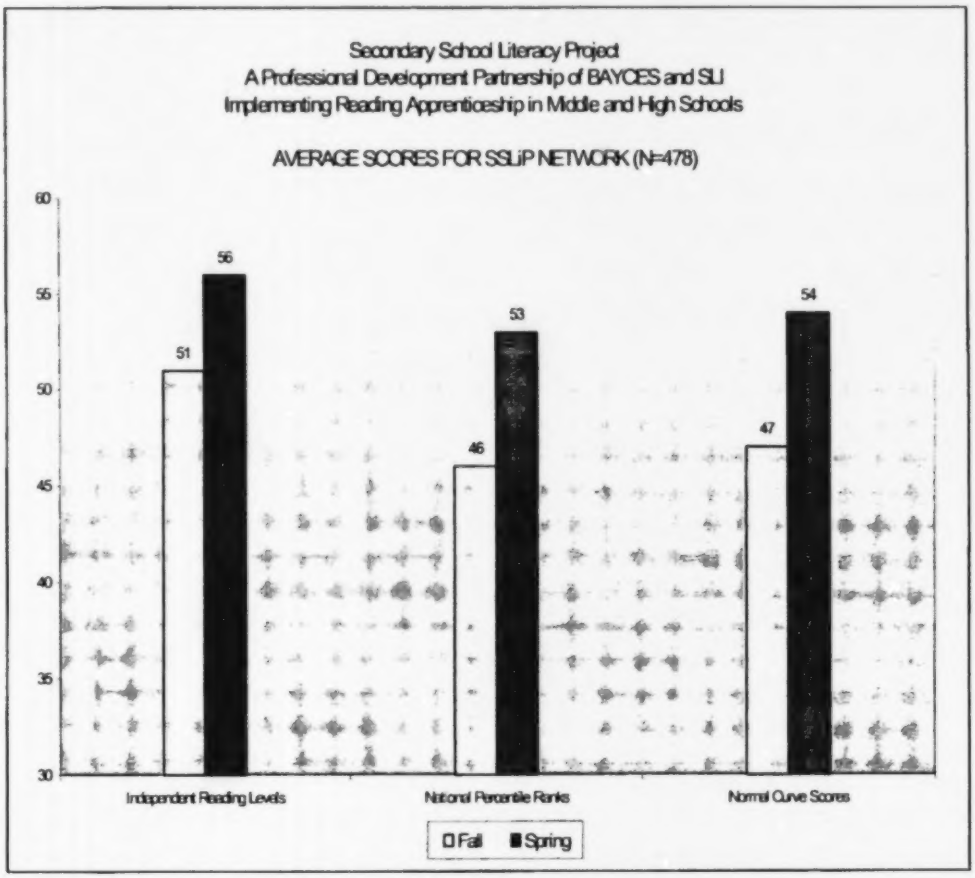
As the chart below demonstrates, for this group of diverse, urban secondary students, the mean independent reading level in the Fall was 51, a score corresponding to texts like *Old Yeller*. By the Spring, the mean independent reading level had increased to 56, which corresponds in difficulty level to a text like *Black Boy* by Richard Wright or *Cry the Beloved Country* by Alan Patton. Compared to a national norming population of age-matched peers, these students increased their national percentile ranking from 46% to 53% by the Spring.



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A paired samples test showed these increases in national percentile and normal curve rankings to be statistically significant ($t = -9.379$, $df = 477$, $p < .000$; $t = -12.206$, $df = 477$, $p < .000$ respectively), indicating that this diverse, urban population of students narrowed the achievement gap between their literacy proficiency and that of more privileged and less diverse, national populations between the Fall and the Spring of the year.

As the following graph shows, when SSLiP students were divided into performance quartiles based on their fall scores on the DRP, the most rapid increases in achievement occur among the two lowest scoring quartiles of students (those who are in most need of instructional support to build literacy proficiencies). Statistically significant gains in independent reading levels for quartiles 1, 2, and 3 (Q1 $t = -9.096$, $df = 116$, $p < .000$; Q2 $t = -8.154$, $df = 114$, $p < .000$; Q3 $t = -6.433$, $df = 123$, $p < .000$) were accompanied by statically significant gains in normal curve (Q1 $t = -8.438$, $df = 116$, $p < .000$; Q2 $t = -8.395$, $df = 114$, $p < .000$; Q3 $t = -6.280$, $df = 123$, $p < .000$) and percentile ranking (Q1 $t = -7.310$, $df = 116$, $p < .000$; Q2 $t = -7.908$ $df = 114$, $p < .000$; Q3 $t = -4.065$, $df = 123$, $p < .000$) for these quartiles, again showing that SSLiP students accelerated their literacy learning compared to a national norming population of grade-matched peers.

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